

MATERIAL SAFETY DATA SHEET

Doc. ID: N-4003-1 Rev. 004

Revised (month/day/year) 08/18/2012

1 Company and Product Identification

Product Names- ALINE PCR Normalizer and ALINE DNA NormalizerTM -v2

Part Numbers- N-4003-1and N-4001

Product Use For Research Use Only. See product literature for details.

Manufacturer / Supplier:

ALINE Biosciences LLC

175 KK New Boston St.

Woburn, Massachusetts 01801 U.S.A.

Tel: 1-888-987-3677

E-mail: info@alinebiosciences.com

Emergency information: 1-888-987-3677/ 24h

2 Hazards Identification

Emergency Overview Brown; Clear with brown precipitate; Liquid; Odorless Nonflammable aqueous solution Does not meet EU, OSHA or WHMIS criteria for hazardous materials. Physical Hazards- None. Potential Health Effects Summary- This product does not meet EU, OSHA OR WHMIS criteria for hazardous materials, however contact may cause irritation of skin, eyes, or respiratory system. See Section 11 Toxicological Information for more detailed health information. Potential Environmental Effects- Not available Product Hazard Classifications Meets Hazardous Criteria for Preparation/Mixture EU: Not applicable WHMIS: Not applicable

US OSHA: Not applicable

3 Composition and Information on Ingredients

Hazardous Ingredients: None

4 First Aid Measures

Inhalation If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

Eye Contact If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occurs, obtain medical attention.

Skin Contact In case of skin contact, flush with copious amounts of water for at least 15 minutes.

Remove contaminated clothing and shoes. If pain or irritation occurs, obtain medical attention.

Ingestion If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

5 Fire Fighting Measures

Flammable Properties Nonflammable aqueous solution.

Extinguishing Media Use extinguishing media suitable for surrounding fire.

Special Fire and Explosion Hazards- No special hazards determined.

Hazardous Combustion Products- No combustion products posing significant hazards are expected from this product (a dilute aqueous solution).

Protective Equipment for Firefighters- Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

6 Accidental Release Measures

Personal Precautions Use good laboratory procedures; avoid eye and skin contact.

Spill and Leak Procedures- Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

Environmental Precautions- Contain spill to prevent migration.

7 Handling and Storage

Handling Precautions Use good laboratory procedures; avoid eye and skin contact.

Recommended Storage Conditions- To maintain efficacy, store according to the instructions in the product labeling. Keep away from incompatible material (see Section 10).

8 Exposure Controls and Personal Protection

Exposure Limits
US OSHA: None established
ACGIH: None established
DFG MAK: None established
DFG MAK: None established
Japan None established
Japan None established
Engineering Controls No special engineering controls are required. Use with good general ventilation.
Respiratory Protection Under normal conditions, the use of this product should not require respiratory
protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.
Eye Protection Safety glasses or chemical goggles should be worn to prevent eye contact.
Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.
Skin Protection Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact.
Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

9 Physical and Chemical Properties

General Information

Physical State Liquid

Color Brown Transparency Clear with brown precipitate **Odor** Odorless Odor Threshold Not applicable **pH** 8.0 - 8.4 Change in condition Freezing Point Not available **Boiling Point** Not available Flash Point Not applicable **Evaporation Rate** Not available Flammability (Solid, Gas) Not applicable Flammable Limits Not available Vapor Pressure Not available Vapor Density Not available **Specific Gravity** ≈ 1.127 Solubility- Water Miscible **Organic** Not available Coefficient of Water/Oil Distribution- Not available Autoignition Temp. Not applicable **Decomposition Temperature** Not available Percent Volatiles Not applicable

10 Stability and Reactivity

Stability Stable in closed containers under normal temperatures and pressures.

Hazardous Incompatibilities Strong acids, Strong bases, Strong oxidizers, Metals and metallic compounds. Hazardous Decomposition Products

No decomposition products posing significant hazards would be expected from this product (a dilute aqueous solution).

Conditions to Avoid contact with incompatible materials.

11 Toxicological Information

Toxicity Data

for Hazardous Ingredients Not applicable

Primary Routes of Exposure- The most likely routes of exposure are skin and eye contact. Inhalation may occur if mists are formed in product use.

Potential Effects of Acute Exposure- None identified.

Potential Effects of Chronic Exposure- None identified.

Symptoms of Overexposure None identified.

Carcinogenicity No ingredients in this product are listed as carcinogens by:

ACGIH (American Conference of Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA or 67/548/EEC. (Occupational Safety & Health Administration)

Other Effects None identified.

Conditions Aggravated by Exposure- None identified.

12 Ecological Information

Ecotoxicity No information available.

Biodegradability No information available.

Bioaccumulation No information available. **Mobility** No information available. **Other Adverse Effects** No information available.

13 Disposal Considerations

Waste Disposal Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

14 Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

15 Regulatory Information

US Federal and State Regulations SARA 313 Not applicable CERCLA RG's, 40 CFR 302.4 Not applicable California Proposition 65 No ingredients listed. Massachusetts MSL Not applicable New Jersey Dept. of Health RTK List- Not applicable Pennsylvania RTK Not applicable EU Labeling Classification- Preparation not classified. Canada- This product does not meet WHMIS criteria for hazardous materials. PIN: Not applicable Ingredients on Ingredient Disclosure List: Not applicable Ingredients with unknown toxicological properties: None

16 Other Information

ALINE Bioscience Safety Rating Code 0=none 1=slight 2=caution 3=severe Flammability (Section V): 0 Health (Section XI): 1 Reactivity with Water (Section X): 0 Contact (Section VIII): 1

Revision Changes Revised manufacturer's address in Section 1 This MSDS complies with EC Regulation 1907/2006 (REACH)

For further information, please contact your local ALINE BIOSCIENCES representatives.

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